

SOUTH PACIFIC COMMISSION

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REPORT ON THE SPECIAL PROJECT ON THE CONSERVATION OF NATURE

SOUTH PACIFIC COMMISSION

by

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The special project on the conservation of nature was approved by the Thirteenth South Pacific Conference in October 1973 and was activated by the appointment of Dr. Arthur L. Dahl as Regional Ecological Adviser, commencing in June 1974. It is therefore appropriate at this point, two years after the commencement of the programme to review its accomplishments to date and to suggest appropriate directions for its future development.

The goals of the project and the responsibilities of the Regional Ecological Adviser as originally defined were as follows:

1. Advise SPC Officers, Governments and territorial Administrations on environmental planning, including beautification, and the solution of environmental problems.
2. Organise and assist in conducting training courses and seminars in ecology and environmental conservation.
3. Undertake environmental surveys as requested and assist in environmental development planning.
4. Maintain liaison with appropriate international agencies.
5. Revise and apply quantitative tests for increasing effectiveness of conservation programmes.
6. Prepare articles, papers and educational materials within the scope of the Commission's Work Programme for publication by the Commission and elsewhere.

Funds were provided for short term consultants, meetings and training courses, and educational and technical publications. These aims were developed from the recommendations of the Regional Symposium on Conservation of Nature - Reefs and Lagoons which was held in Noumea in 1971.

Since this was a new activity in the South Pacific Region, the first priority was to make contact with island governments to determine accomplishments and requirements in the areas of conservation of nature and environmental planning, and to determine how a regional programme could best meet local needs. The Regional Ecological Adviser has therefore visited every major territory and country in the region to meet with governmental officials responsible for the various aspects of the environment and to discuss with them the needs within their countries and territories and on a regional basis. This in itself has helped to increase the awareness in the region of the need for management of environmental resources. The results of this survey were published in the first issue of the SPC Environment Newsletter as an outline for an SPC environment programme. The programme so developed served as an initial basis for discussions with a number of international organisations concerning outside support for environmental projects in the region. The needs as defined in this study and the progress to

date in meeting those needs are discussed below in some detail.

The fundamental goal of environmental activities of the South Pacific Commission is to assist the governments and territories within the Commission area to meet the economic, social and health needs of their peoples without destroying the natural resources or upsetting the ecological equilibrium so necessary to the long term future of the islands and the quality of life of their peoples. This can only be accomplished with a multi-dimensional programme including the following components:

1. RESEARCH AND MONITORING.

Without adequate scientific information on the resources of the region, management decisions must be based on guesswork or extrapolation from other regions. It is also impossible to say what changes are taking place in island ecosystems with the increasing impact of man. A number of activities are therefore needed.

(a) Faunistic and Floristic Inventories.

In many islands the native plants and animals that make up the flora and fauna are still not completely known to science. The Commission has attempted to identify needs and to encourage researchers to study in the region. Scientists often write to the Commission for information on governmental regulations concerning research in countries to which they hope to travel and on local institutions or individuals with whom they can cooperate. More needs to be done to facilitate scientific research in the region (perhaps through the establishment of small field laboratories in each island group), to establish uniform regulations controlling the activities of outside researchers so that they do not abuse their responsibility to the island peoples and governments, and to ensure that the results of such research return in some useful form to the country or territory concerned. The Pacific Science Association can also be encouraged in its efforts to identify research needs in the region and to stimulate programmes to meet those needs.

(b) Coral Reefs

It is only in recent years that modern techniques have permitted major advances in the study of coral reefs. However these studies have been carried out at only a few restricted and not necessarily typical sites in the Pacific, with the result that for most of the region there is little information on which to plan for the management and development of reef resources. The Commission is developing techniques for surveying and monitoring reef resources and plans to make this a major programme emphasis in the future. Similar resource monitoring is also needed on land. Without such activities, many potential resources for islands may be lost before they are ever known.

(c) Mangroves

Mangrove swamps are an important but little understood resource for many island countries. Some efforts have therefore gone towards encouraging local research projects to study the significance of mangrove habitats for fisheries and waste treatment and to measure the impact of developments on the mangrove system. More needs to be done to provide a sound basis for government management of this resource.

(d) UNESCO Man and the Biosphere programmes.

The Regional Ecological Adviser has cooperated with UNESCO to stimulate and coordinate MAB programmes in the Pacific, particularly under theme 7, Man in island ecosystems, and theme 8, biosphere reserves. The regional ecosystems survey in particular will help to identify potential biosphere reserve sites.

(e) Environmental monitoring.

It has become increasingly apparent that environmental management can only be undertaken with adequate knowledge of the often rapidly changing status of island natural resources. The Commission is continuing a small pilot programme in resource monitoring techniques, and has held discussions with a variety of resource specialists. This should be a major element in a continuing SPC environmental management programme, and outside funding is now being sought to increase regional capabilities and to train local personnel so that the necessary long-term monitoring of environmental resources can be undertaken as part of comprehensive government planning.

(f) Agricultural chemicals and integrated pest control

The Commission has advised a number of governments on the technical and legislative aspects of pollution prevention and control, and has helped to increase the utilization of biological controls. This will continue to be a major responsibility of a number of Commission officers.

2. TRAINING.

The initial needs for trained environmental personnel have been so varied that additional regional training activities were not justified, although some training has been provided in connection with local projects. With the increasing number of proposals for major development projects, however, there is an increasing need within governments for middle-level staff able to undertake basic environmental impact studies, and knowledgeable in the ecological understanding and practical field techniques necessary to ensure that outside developers or enterprises are fulfilling their environmental obligations. A training course to meet these needs is now being planned for the coming year.

There is also a great need for basic village level training in local resource management, since most environmental responsibility still rests at the village level. This can probably best be accomplished at a permanent training centre comparable to the SPC Community Education Training Centre and funding to establish such a centre is now being sought.

3. LEGISLATION AND GOVERNMENT ORGANIZATION.

The Regional Ecological Adviser has helped and is continuing to help several governments to develop adequate conservation and environmental legislation. The assistance of an outside expert is now being sought to complete the development of model legislative texts suitable to Pacific Island conditions. There has also been great progress within some Governments and Territorial Administrations of the region in the assignment and coordination of environmental responsibility. More still needs to be done, however, particularly with respect to coordination between separate departments, incorporation of environmental criteria and data into the planning process, and placement of an environmental "voice" at a high

enough level that it can carry some weight against those arguing for immediate development regardless of the long-term cost.

4. PLANNING.

The Commission has provided governments with general information on environmental planning as well as specific advice on a wide variety of development projects and environmental impacts including waste disposal, reef channel blasting, construction, mining, and processing-industry effluents. More needs to be done to increase government capabilities in this area, so it is expected that this will continue to be a major programme component. As an independent and unbiased source of expertise, the Commission can play an important role in helping to guide island development in those directions most beneficial to the island peoples it is intended to serve.

(a) Coastal Management

With the rapidly increasing experience in coastal zone management elsewhere in the world, much is being learned that could benefit island governments in their planning efforts, and that could help them to avoid the expensive and often irreversible mistakes made elsewhere. If it is possible for the SPC to expand its environmental programme, the accelerated transfer of this information to the Pacific region will be an important part of its activities.

(b) Eco-development assistance

Eco-development is basically development in harmony with the resources and limits of the ecological systems of which man forms a part. It aims towards a human scale of development based largely on self-help at the village-level, with benefits reaching immediately and directly to the people most in need. The Commission has for many years been working in aspects of eco-development under other names, and is now reorganising its structure to enable it to undertake more integrated and complete programmes of eco-development assistance. The expansion of SPC technical assistance, training, education and extension activities in ecodevelopment is now planned, both through the redirection of existing resources and through external assistance.

5. CONSERVATION, PARKS AND RESERVES.

This has been a principal emphasis of the Special Project on Conservation including co-sponsorship of the South Pacific Conference on National Parks and Reserves (Wellington, N.Z., February, 1975) and the Second Regional Symposium on Conservation of Nature (Apia, Western Samoa, June 1976), and assistance to efforts to conclude a Convention on Conservation in the South Pacific Region.

(a) Regional Conservation Planning.

The Regional Ecological adviser has undertaken a regional ecosystems survey with the financial support of IUCN. This survey describes the many types of ecosystems or biological communities found in the region, summarizes the progress made so far towards the protection of viable samples of these ecosystems, and identifies the need for further conservation action.

need for further work in marine ecosystem surveys and education

(b) Parks and nature reserves.

In addition to aiding national surveys for parks and reserves, the Commission has worked to define conservation solutions most appropriate to island conditions. Such conservation approaches must take into account the limited resources on which the population must depend, traditional systems of land tenure, opposition to alienation of land, and the fragility and vulnerability of many island environments and species.

(c) Traditional conservation.

The successful management of environmental resources by traditional cultures can often provide models for the future, but much of this traditional knowledge is being lost. The SPC will continue its efforts to encourage the salvage of this invaluable dimension of island cultures.

(d) Cooperation with IUCN.

The Commission has worked very closely with IUCN in the development of regional efforts for conservation in the Pacific, and will presumably play an increasing role as a regional executing agency for IUCN programmes. Increasing attention will be given to the problems of conservation in the marine environment, and to the possible development of international or world parks and reserves in the Pacific area.

6. ENVIRONMENTAL EDUCATION.

(a) Curriculum development.

A consultant on environmental education, Mrs. Margie Palanruw, is presently working with the Commission under the Special Project on Conservation to develop curriculum outlines and instructional materials designed to help children to understand their village and island environment, and to assist teachers to include environmental concepts in their courses. Such efforts will be expanded if funds permit to include the development and distribution of audio-visual aids and other supplementary materials for school use.

(b) Museum programme.

Museums can be a powerful means to environmental education because they teach with objects and can thus reach every stratum of island populations. However this potential is largely unrealized at present. Museums can also serve as a center of scientific studies for an island country or territory and as a depository for scientific collections which can then be available for local reference. The Regional Ecological Adviser has undertaken an initial project in American Samoa to help to demonstrate this potential through the development of a planned environmental exhibits programme, the construction of the initial exhibits, the preparation of adequate collection storage facilities and the training of museum staff. Similar assistance can be provided to other Pacific Island museums on request.

(c) Adult Education.

If conservation and environmental resource management are to succeed in the Pacific, the message must reach the village level. Films can be a most effective means of communication with the villages, but they must be specially adapted to the rural island situation. It is therefore planned to produce a series of films, radio programmes and other educational materials for village environmental education, to the extent that resources permit. Such materials can greatly

amplify the impact and effectiveness of the Commission's small team of technical specialists.

7. INFORMATION.

(a) Scientific information.

One of the principal handicaps of the island situation is the remoteness and small size that inhibits the development of an adequate flow of information. With the development of modern communications and data processing technology, it may now be economically feasible to develop a scientific and technical information system capable of meeting most regional needs. Only in this way can governments, administrators and technical specialists hope to have available the information necessary for sound development planning and environmental management. The Commission is continuing to explore the possibilities of such a system and to seek the necessary financial support for its eventual establishment.

(b) Environmental inventories.

It is not possible to plan for resource development if the resources available are not known. Too many development projects have failed because the resources on which they were based were not adequately surveyed. The Commission has at present only a limited potential to assist in such surveys using the appropriate technical specialists on its staff, but it is hoping to expand its environmental resource survey capability if outside assistance becomes available.

(c) Introductions of alien organisms.

Some of the greatest existing environmental problems in the Pacific Islands are the result of the introduction of alien organisms (plant or animal) which have attacked crops and trees, invaded agricultural lands, and eaten, out-competed, or replaced native species. The prevention of further unwise introductions is often a question of adequate information, and the Commission will continue to provide every possible assistance in this regard.

8. FUTURE DEVELOPMENT OF THE SPC ENVIRONMENT PROGRAMME.

Since its inception, the SPC Special Project on Conservation of Nature has aimed to define the needs for regional environmental and conservation assistance and to develop programmes as described above to fill those needs. It should perhaps more appropriately be termed a project on Conservation and Environmental Management.

It is now necessary to define the future role of the South Pacific Commission in this area, particularly in this year when the functions of the Commission are being redefined and its structure reorganized, and this is one of the principal aims of this Symposium. The representatives of governments, international organizations, and scientific institutions gathered here are asked to make a critical evaluation of what has been accomplished during the past two years, and to recommend guidelines and specific action programmes for the continuation of conservation and environmental activities at the SPC, elsewhere in the region, and by international organizations.

With responsibilities of the scope originally defined in the Special Project, the human and financial resources of the Commission have been spread very thinly, and progress has necessarily been slower than desirable. As the only organization encompassing all the South Pacific Island countries and territories, the SPC is the logical regional environmental organization, and an appropriate executing agency for certain types of programmes of international organizations and other aid donors. The programme described above can only be carried to completion if substantial additional resources are made available. IUCN has already been most helpful in this respect, and negotiations are continuing with the United Nations Environment Programme concerning the form that their assistance might take. It would be useful if this meeting would comment on and assign priorities to the projects described above as an aid to further programme development and as a guide to interested funding agencies. In this way the programme undertaken will be fitted as closely as possible to the needs and desires of the governments and peoples of the Pacific Islands.
